

ATTORNEY DOCKET NO.: ASC-043C2

INFORMATION DISCLOSURE STATEMENT

APPLICANT(S): Fitzgerald et al.

SERIAL NO.: 10/625,018

2822

FILING DATE: July 23, 2003 GROUP:-Not yet assigned

U.S. PATENT DOCUMENTS CLASS FILING DATE IF EXAM. DOCUMENT DATE NAME SUB APPROPRIATE INIT. NUMBER **CLASS** 4,010,045 03/01/1977 Ruehrwein A1 12/01/1987 Dämbkes et al. 4,710,788 A2 4,990,979 02/05/1991 **A3** Otto 03/05/1991 4,997,776 Harame et al. A4 5,013,681 05/07/1991 Godbey et al. Α5 5,155,571 10/13/1992 Wang et al. A6 5,166,084 11/24/1992 Pfiester A7 5,177,583 01/05/1993 Endo et al. Α8 5,202,284 04/13/1993 Kamins et al. Α9 5,207,864 05/04/1993 Bhat et al. A10 05/04/1993 5,208,182 Narayan et al. AII 5,212,110 05/18/1993 Pfiester et al. A12 5,221,413 06/22/1993 Brasen et al. A13 5,241,197 08/31/1993 Murakami et al. A14 5,250,445 10/05/1993 Bean et al. A15 5,285,086 02/08/1994 Fitzgerald A16 5,291,439 03/01/1994 Kauffmann et al. A17 5,298,452 03/29/1994 Meyerson A18 5,310,451 05/10/1994 Tejwani et al. A19 5,316,958 05/31/1994 A20 Meyerson 5,346,848 09/13/1994 Grupen-Shemansky et al. A21 5,374,564 12/20/1994 Bruel A22 5,399,522 03/21/1995 Ohori A23

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U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
KBD	A24	5,413,679	05/09/1995	Godbey			
	A25	5,426,069	06/20/1995	Selvakumar et al.			
	A26	5,426,316	06/20/1995	Mohammad			
	A27	5,442,205	08/15/1995	Brasen et al.			
	A28	5,461,243	10/24/1995	Ek et al.			
	A29	5,461,250	10/24/1995	Burghartz et al.			
	A30	5,462,883	10/31/1995	Dennard et al.			
	A31	5,476,813	12/19/1995	Naruse			
	A32	5,479,033	12/26/1995	Baca et al.			
	A33	5,484,664	01/16/1996	Kitahara et al.			-
	A34	5,523,243	06/04/1996	Mohammad			
	A35	5,523,592	06/04/1996	Nakagawa et al.			
	A36	5,534,713	07/09/1996	Ismail et al.			
	A37	5,536,361	07/16/1996	Kondo et al.			
	A38	5,540,785	07/30/1996	Dennard et al.			
	A39	5,596,527	01/21/1997	Tomioka et al.			
	A40	5,617,351	04/01/1997	Bertin et al.			
	A41	5,630,905	05/20/1997	Lynch et al.			
	A42	5,659,187	08/19/1997	Legoues et al.			
	A43	5,683,934	11/04/1997	Candelaria			
	A44	5,698,869	12/16/1997	Yoshimi et al.			
	A45	5,714,777	02/03/1998	Ismail et al.			
	A46	5,728,623	03/17/1998	Mori			
	A47	5,739,567	04/14/1998	Wong			

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KBD	A48	5,759,898	06/02/1998	Ek et al.			
	A49	5,786,612	07/28/1998	Otani et al.			
	A50	5,792,679	08/11/1998	Nakato			
	A51	5,808,344	09/15/1998	Ismail et al.			
	A52	5,847,419	12/08/1998	Imai et al.			
	A53	5,877,070	03/02/1999	Goesele et al.			
	A54	5,891,769	04/06/1999	Liaw et al.			
	A55	5,906,708	05/25/1999	Robinson et al.			
	A56	5,912,479	06/15/1999	Mori et al.			
	A57	5,943,560	08/24/1999	Chang et al.			
	A58	5,963,817	10/05/1999	Chu et al.			
+	A59	5,966,622	10/12/1999	Levine et al.			
	A60	5,998,807	12/07/1999	Lustig et al.			
	A61	6,033,974	03/07/2000	Henley et al.			
	A62	6,033,995	03/07/2000	Muller.			
 	A63	6,058,044	05/02/2000	Sugiura et al.			
	A64	6,074,919	06/13/2000	Gardner et al.			
+	A65	6,096,590	08/01/2000	Chan et al.			
1	A66	6,103,559	08/15/2000	Gardner et al.			
+	A67	6,107,653	08/22/2000	Fitzgerald			
+	A68	6,117,750	09/12/2000	Bensahel et al.			
	A69	6,130,453	10/10/2000	Mei et al.			
+	A70	6,133,799	1.0/17/2000	Favors et al.			
V	A71	6,140,687	10/31/2000	Shimomura et al.		_	

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U.S. PATENT DOCUMENTS CLASS SUB FILING DATE IF DATE NAME DOCUMENT EXAM. APPROPRIATE **CLASS** INIT. NUMBER 11/07/2000 Forbes et al. 6,143,636 A72 11/28/2000 Kub et al. 6,153,495 A73 6,154,475 11/28/2000 Soref et al. A74 6,160,303 12/12/2000 Fattaruso A75 12/19/2000 Gardner et al. 6,162,688 A76 02/06/2001 Henley et al. A77 6,184,111 6,191,007 02/20/2001 Matsui et al. A78 6,191,432 02/20/2001 Sugiyama et al. A79 02/27/2001 Fiorini et al. 6,194,722 A80 6,207,977 03/27/2001 Augusto A81 6,210,988 04/03/2001 Howe et al. A82 6,218,677 04/17/2001 Broekaert A83 05/15/2001 Fitzgerald et al. 6,232,138 A84 05/22/2001 6,235,567 Huang A85 06/05/2001 Kub et al. 6,242,324 A86 -6,251,755 06/26/2001 Furukawa et al. A87 07/17/2001 Gehrke et al. 6,261,929 A88 08/07/2001 Schmitz et al. 6,271,551 A89 6,271,726 08/07/2001 Fransis et al. A90 6,291,321 09/18/2001 Fitzgerald A91 6,313,016 11/06/2001 Kibbel et al. A92 11/13/2001 Kant 6,316,301 A93 11/27/2001 6,323,108 Kub et al. A94 6/18/2004 DATE CONSIDERED **EXAMINER**



INFORMATION DISCLOSURE STATEMENT

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						SERIAL N	IO.: 10/62	5,018			
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EXAM. INIT.		DOCUMENT NUMBER	DATE		NAME			CLASS	SUB CLASS		IG DATE IF OPRIATE
KBD	A95	6,329,063	12/11/2001	1	Lo et al.						
	A96	6,335,546	01/01/2002	2	Tsuda et	al.					
	A97	6,339,232	01/15/2002	2	Takagi						
	A98	6,350,993	02/26/2002	2	Chu et al	!.					
	A99	6,368,733	04/09/2002	2	Nishinag	a					
	A100	6,372,356	04/16/2002	/2002 Thornton		et al.					
	A101	6,399,970	06/04/2002	2	Kubo et a	al.					
	A102	6,403,975	06/11/2002	2	Brunner	et al.					
	A103	6,407,406	06/18/2002	2	Tezuka						
	A104	6,425,951	07/30/2002	2	Chu et al	!.		•			·
	A105	6,429,061	08/06/2002	2	Rim	******					
	A106	6,521,041	02/18/2003	3	Wu et al.						
	A107	6,555,839	04/29/2003	3	Fitzgeral	gerald					
	A108	6,602,613	08/05/2003	3	Fitzgeral	gerald				01/17	/2001
	A109	2001/0003364	06/14/2001	1	Sugawar	a et al.					
	A110	2002/0100942	08/01/2001	1	Fitzgeral	d et al.					
	Alli	2002/0123197	09/05/2002	2	Fitzgeral	d et al.					
0 0	A112	2002/0125471	09/12/2002	2	Fitzgeral	d et al.					
4	A113	2002/0140031	10/03/2002	2	Rim						
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EXAM. INIT.		DOCUMENT NUMBER	DATE		UNTRY	CLASS	SUB CLASS	FILING DATE	ABSTI		ENGLISH LANG (Y/N)
KBD	BI	41 01 167	07/23/1992	DE	,				N		Abstract
	B2 /	0 514 018	11/19/1992	EP		_			N		Y
V	B3/	0 587 520	03/16/1994	EP					N		Y
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	FOREIGN PATENT DOCUMENTS										
EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG (Y/N)		
UBD	.B4 /	0 683 522	11/22/1995	EP				N	Y		
	B5	0 828 296	03/11/1998	EP				N	Υ		
	B6_	0 829 908	03/18/1998	EP				N	Y		
	B7 /	0 838 858	04/29/1998	EP				N	Abstract		
	B8	1 020 900	07/19/2000	EP				N	Y		
	B9_	1 174 928	01/23/2002	EP				N	Y		
	B10	2 342 777	04/19/2000	GB				Y	Y		
	BII	-5-166724	07/02/1993	JР				N	Abstract		
	B12	6-177046	06/24/1994	JP				N	Abstract		
	B13	6-252046	09/09/1994	JP				Υ	Y		
	B14,	7-94420 .	04/07/1995	JP				N	N		
	B15	-7-240372	09/12/1995	JP				N	Abstract		
	B16	10-270685	10/09/1998	JР				N	Y		
	B17	2000-021783	01/21/2000	JР				N	Y		
	B18	2000-031491	01/28/2000	JР				N	Y		
	B19	2001-319935	11/16/2001	JP				N	Y		
	B20	2002-076334	03/15/2002	JP				N	Y		
	B21	2002-164520	06/07/2002	JP				N	Y		
	B22	2002-289533	10/04/2002	JP				N	Y		
	B23	98/59365	12/30/1998	wo				N	Y		
	B24	-99/53539	10/21/1999	wo				N	Y		
	B25	00/48239	08/17/2000	wo				N	Y		
	B26	-00/54338	09/14/2000	wo				N	Υ		
	B27	01/022482	03/29/2001	wo				N	Υ		
	B28	01/54202	07/26/2001	wo				N	Y		
$\overline{}$	B29	01/93338	12/06/2001	wo				N	Y		
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EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG (Y/N)
KBD	B30	01/99169	12/27/2001	wo				N	Y
	B31	02/13262	02/14/2002	wo				N	Y
1	B32	02/15244	02/21/2002	wo				N	Y
	B33	, 02/27783	04/04/2002	wo				N	Υ
	B34	02/47168	06/13/2002	wo				N	Y
	B35	02/071488	09/12/2002	wo		1		N	Y
	B36	02/071491	09/12/2002	wo				N	Y
	B37	02/071495	09/12/2002	wo				N	Y
V	B38	-02/082514	10/17/2002	wo				N	Y
			OTHER A	RT, JOURI	NAL ART	ICLES, E	TC.		
EXAM. INIT.	отн	ER DOCUMEN	TS: (Including	g Author, Ti	tle, Date, Re	levant Pag	es, Place of	Publication)	
KBD		Armstrong <i>et al.</i> , Transistors," <u>IEC</u>	M Technical D	igest (1995	International	Electron Do	evices Meet	ing), pp. 761-76	54.
		Armstrong, "Tec Institute of Tech	nology, 1999, p	p. 1-154.					
	СЗ	Augusto et al., "I MOSFETs witho	Proposal for a Nout Ion Implanta	lew Process tion," <u>Thin S</u>	Flow for the Solid Films, \	Fabrication /ol. 294, N	of Silicon- o. 1-2 (Febr	Based Complem ruary 15, 1997),	nentary MOD- pp. 254-258.
		Barradas <i>et al.</i> , " channels for HM	OS transistors,	Modern Ph	ysics Letters	B, Vol. 15	(2001), absi	tract.	
		Borenstein <i>et al.</i> the 1999 12th IE 1999), pp. 205-2	EE Internationa 10.	l Conference	on Micro E	lectro Mech	anical Syst	ems (MEMs) (Ja	anuary 17-21,
V		Bouillon et al., " study," <u>IEEE</u> (19			nel architectu	re for 0.18/	0.12 μm bι	ilk CMOS expe	rimental
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		OTHER ART, JOUR	NAL ARTICLES, ETC.					
EXAM. INIT.	ОТІ	HER DOCUMENTS: (Including Author, Ti	tle, Date, Relevant Pages, Place of Publication)					
KBD	C7 /	Bruel et al., "®SMART CUT: A Promising International SOI Conference (October 1995)	New SOI Material Technology," Proceedings of the 1995 IEEE), pp. 178-179.					
	C8	1201-1202.	logy," <u>Electronic Letters</u> , Vol. 13, No. 14 (July 6, 1995), pp.					
	C9	Vol. 84, No. 10 (November 15, 1998), pp. 55	the state of the s					
	C10	Technology," <u>IEEE Transactions on Microw</u> 100-104.	Capacitors in Standard Multilevel Interconnect Silicon ave Theory and Techniques, Vol. 44, No. 1 (January 1996), pp.					
	CII	devices with strained epitaxial films," Interna	Ge layer on an insulator in fabricating high-speed semiconductor ational Business Machines Corporation, USA (2002), abstract.					
	C12 Carlin et al., "High Efficiency GaAs-on-Si Solar Cells with High Voc using Graded Gesi Buffers, 2000 (2000), pp. 1006-1011.							
	C13	Chang et al., "Selective Etching of SiGe/Si F (January 1991), pp. 202-204.	leterostructures," Journal of the Electrochemical Society, No. 1					
	C14 Cheng et al., "Electron Mobility Enhancement in Strained-Si n-MOSFETs Fabricated on SiGe-on-Insulator (SGOI) Substrates," IEEE Electron Device Letters, Vol. 22, No. 7 (July 2001), pp. 321-323.							
	C15 Cheng et al., "Relaxed Silicon-Germanium on Insulator Substrate by Layer Transfer," Journal of Electronic Materials, Vol. 30, No. 12 (2001), pp. L37-L39.							
	C16	Cullis et al., "Growth ripples upon strained S Journal of Vacuum Science and Technology	GiGe epitaxial layers on Si and misfit dislocation interactions," A, Vol. 12, No. 4 (July/August 1994), pp. 1924-1931.					
	C17	Currie et al., "Carrier mobilities and process substrates," Journal of Vacuum Science and	stability of strained Si n- and p-MOSFETs on SiGe virtual Technology B, Vol. 19, No. 6 (Nov/Dec 2001), pp. 2268-2279.					
	C18	Currie et al., "Controlling Threading Disloca Chemical-Mechanical Polishing," Applied P	ntion Densities in Ge on Si Using Graded SiGe Layers and hysics Letters, Vol. 72, Issue 14 (04/06/98), pp. 1718-1720.					
	C19	Eaglesham et al., "Dislocation-Free Stranski- Vol. 64, No. 16 (April 16, 1990), pp. 1943-1	Krastanow Growth of Ge on Si(100)," Physical Review Letters, 946.					
	C20	Feijoo et al., "Epitaxial Si-Ge Etch Stop Lay Silicon-on-Insulator," Journal of Electronic	ers with Ethylene Diamine Pyrocatechol for Bonded and Etchbac Materials, Vol. 23, No. 6 (June 1994), pp. 493-496.					
	C21	alloys," Journal of Applied Physics, Vol. 80,						
V	C22	Fischetti, "Long-range Coulomb interactions oxide structures," Journal of Applied Physics	in small Si devices. Part II. Effective electronmobility in thin- , Vol. 89, No. 2 (January 15, 2001), pp. 1232-1250.					
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		OTHER ART, JOUR	NAL ARTICLES, ETC.							
EXAM. INIT.	OTF	IER DOCUMENTS: (Including Author, Ti	tle, Date, Relevant Pages, Place of Publication)							
KBP	C23	Engineering, B67 (1999), pp. 53-61.	laxed graded composition semiconductors," Materials Science and							
	C24	electron gases in Si," Journal of Vacuum Sci	es for III-V integration with Si and high mobility two-dimensional ence Technology, B 10(4) (Jul/August 1992), pp. 1807-1819.							
	C25 Fitzgerald et al., "Totally Relaxed GexSi1-x. Layers with Low Threading Dislocation Densities Grown on Si Substrates," Applied Physics Letters, Vol. 59, No. 7 (August 12, 1991), pp. 811-813.									
	C26 Garone et al., "Silicon vapor phase epitaxial growth catalysis by the presence of germane," Applied Physics Letters, Vol. 56, No. 13 (March 26, 1990), pp. 1275-1277.									
	C27/		Integrated Circuits," John Wiley & Sons, 1984, pp. 605-632.							
	C28	and growth atmosphere," Applied Physics La	Si heterostructures and its dependence on deposition technique etters, Vol. 63, No. 18 (November 1, 1993), pp. 2531-2533.							
	/	(July 2000), pp. 148-151.	-grown relaxed SiGe buffers," <u>Thin Solid Films</u> , Vol. 369, No. 1-2							
	C30	Crystal Growth, Vol. 201/202 (1999), pp. 73								
	C31	Herzog et al., "SiGe-based FETs: buffer issu	ues and device results," Thin Solid Films, Vol. 380 (2000), pp. 36-							
	C32	Höck et al., "Carrier mobilities in modulatio applications," Thin Solid Films, Vol. 336 (19	n doped Sil-xGex heterostructures with respect to FET 998), pp. 141-144.							
	C33	grown by plasma-enhanced chemical vapor of 2000), pp. 3920-3922.	e0.83 channel metal-oxide-semiconductor field-effect transistors deposition," <u>Applied Physics Letters</u> , Vol. 76, No. 26 (June 26,							
	C34	(September 17, 1998), pp. 1888-1889.	pe Ge/SiGe MODFETs," Electronics Letters, Vol. 34, No. 19							
	C35	Applied Physics Letters, Vol. 76, No. 19 (M								
	C36	Huang et al., "The Impact of Scaling Down Solid-State Circuits, Vol. 33, No. 7 (July 198	to Deep Submicron on CMOS RF Circuits," <u>IEEE Journal of</u> 98), pp. 1023-1036.							
	C37	of the 1997 IEEE International SOI Conferen								
V	C38	Ishikawa et al., "SiGe-on-insulator substrate 75, No. 7 (August 16, 1999), pp. 983-985.	using SiGe alloy grown Si(001)," Applied Physics Letters, Vol.							
EXAMINI	ER	What & Thony	DATE CONSIDERED 6/18/2014							



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OTHER ART, JOUR	NAL ARTICLES, ETC.									
EXAM. OTHER DOCUMENTS: (Including Author, Ti	tle, Date, Relevant Pages, Place of Publication)									
C56 Li et al., "Design of high speed Si/SiGe hete transistors with reduced short-channel effects (May/June 2002), pp. 1030-1033.	rojunction complementary metal-oxide-semiconductor field effect s," <u>Journal of Vacuum Science and Technology A</u> , Vol. 20, No.3									
	C57 Lu et al., "High Performance 0.1 µm Gate-Length P-Type SiGe MODFET's and MOS-MODFET's," IEEE Transactions on Electron Devices, Vol. 47, No. 8 (August 2000), pp. 1645-1652.									
Vol. 13 (1998), pp. 1225-1246.	d effect transistors," Semiconductor Science and Technology,									
/ (January 1991), pp. 341-347.	nding: A Review," <u>Journal of the Electrochemical Society</u> , No. 1									
C60 Meyerson et al., "Cooperative Growth Pheno Physics Letters, Vol. 53, No. 25 (December	omena in Silicon/Germanium Low-Temperature Epitaxy," Applied 19, 1988), pp. 2555-2557.									
	Mizuno et al., "Advanced SOI-MOSFETs with Strained-Si Channel for High Speed CMOS-Electron/Hole Mobility Enhancement," 2002 Symposium on VLSI Technology, Honolulu (June 13-15), IEEE New York, pp.									
	Enhancement in Strained-Si MOSFET's on SiGe-on-Insulator y," IEEE Electron Device Letters, Vol. 21, No. 5 (May 2000), pp.									
	i p-MOSFETs on SiGe-on-Insulator Substrates Fabricated by I Digest (1999 International Electron Device Meeting), pp. 934-									
C64 Nayak et al., "High-Mobility Strained-Si PM 10 (October 1996), pp. 1709-1716.	OSFET's," IEEE Transactions on Electron Devices, Vol. 43, No.									
C65 O'Neill et al., "SiGe virtual substrate N-char Technology, Vol. 14 (1999), pp. 784-789.	nel heterojunction MOSFETS," Semiconductor Science and									
C66 Papananos, "Radio-Frequency Microelectron Academic Publishers, 1999, pp. 115-117, 18	ic Circuits for Telecommunication Applications," Kluwer 8-193.									
C67 Parker et al., "SiGe heterostructure CMOS compp. 1497-1506.	ircuits and applications," Solid State Electronics, Vol. 43 (1999),									
C68 Ransom et al., "Gate-Self-Aligned n-channel Electron Devices, Vol. 38, No. 12 (Decembe	and p-channel Germanium MOSFET's," <u>IEEE Transactions on</u> r 1991), pp. 2695.									
Vol. 35, No. 6 (March 18, 1999), pp. 503-50										
Effect Transistors," PhD Thesis, Stanford Un										
520.	rface-Channel Strained-Si p-MOSFETs," <u>IEDM</u> (1995), pp. 517-									
C72 Rim et al., "Fabrication and Analysis of Dee Electron Devices, Vol. 47, No. 7 (July 2000)	p Submicron Strained-Si N-MOSFET's," IEEE Transactions on pp. 1406-1415.									
EXAMINER Thank of John	DATE CONSIDERED 6/18/2004									



ATTORNEY DOCKET NO.: ASC-043C2

INFORMATION DISCLOSURE STATEMENT APPLICANT(S): Fitzgerald et al. SERIAL NO.: 10/625,018 FILING DATE: July 23, 2003 GROUP: Not yet assigned OTHER ART, JOURNAL ARTICLES, ETC. EXAM. OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication) INIT. Robbins et al., "A model for heterogeneous growth of Sil-xGex films for hydrides," Journal of Applied Physics, Vol. 69, No. 6 (March 15, 1991), pp. 3729-3732. Sadek et al., "Design of Si/SiGe Heterojunction Complementary Metal-Oxide-Semiconductor Transistors," IEEE Transactions on Electron Devices (August 1996), pp. 1224-1232. Schäffler, "High-Mobility Si and Ge Structures," Semiconductor Science and Technology, Vol. 12 (1997), pp. 1515-1549. C76 Sugimoto et al., "A 2V, 500 MHz and 3V, 920 MHz Low-Power Current-Mode 0.6 μm CMOS VCO Circuit," IEICE Trans Electron, Vol. E82-C, No. 7 (July 1999), pp. 1327-1329. Ternent et al., "Metal Gate Strained Silicon MOSFETs for Microwave Integrated Circuits," IEEE (October 2000), pp. 38-43. Tweet et al., "Factors determining the composition of strained GeSi layers grown with disilane and germane," Applied Physics Letters, Vol. 65, No. 20 (November 14, 1994), pp. 2579-2581. Usami et al., "Spectroscopic study of Si-based quantum wells with neighboring confinement structure," Semiconductor Science and Technology, (1997), abstract. Welser et al., "Electron Mobility Enhancement in Strained-Si N-Type Metal-Oxide-Semiconductor Field-Effect Transistors," IEEE Electron Device Letters, Vol. 15, No. 3 (March 1994), pp. 100-102. Welser et al., "Evidence of Real-Space Hot-Electron Transfer in High Mobility, Strained-Si Multilayer MOSFETs," IEEE IDEM Technical Digest (1993 International Electron Devices Meeting), pp. 545-548. Welser et al., "NMOS and PMOS Transistors Fabricated in Strained Silicon/Relaxed Silicon-Germanium Structures," IEEE IDEM Technical Digest (1992 International Electron Devices Meeting), pp. 1000-1002. Welser, "The Application of Strained Silicon/Relaxed Silicon Germanium Heterostructures to Metal-Oxide-Semiconductor Field-Effect Transistors," PhD Thesis, Stanford University, 1994, pp. 1-205. Wolf et al., "Silicon Processing for the VLSI Era, Vol. 1: Process Technology," Lattice Press, Sunset Beach, C84 CA, 1986, pp. 384-386. C85 Xie et al., "Semiconductor Surface Roughness: Dependence on Sign and Magnitude of Bulk Strain," The Physical Review Letters, Vol. 73, No. 22 (November 28, 1994), pp. 3006-3009. Xie et al., "Very High Mobility Two-Dimensional Hole Gas in Si/GexSi1-x/Ge Structures Grown by Molecular Beam Epitaxy," Applied Physics Letters, Vol. 63, Issue 16 (October 18, 1993), pp. 2263-2264. C87 Xie. "SiGe Field Effect Transistors," Materials Science and Engineering, Vol. 25 (1999), pp. 89-121. C88 Yeo et al., "Nanoscale Ultra-Thin-Body Silicon-on-Insulator P-MOSFET with a SiGe/Si Heterostructure Channel," IEEE Electron Device Letters, Vol. 21, No. 4 (April 2000), pp. 161-163. DATE CONSIDERED 12004 **EXAMINER**



ATTORNEY DOCKET NO.: ASC-043C2

INFORMATION DISCLOSURE STATEMENT

APPLICANT(S): Fitzgerald et al.

SERIAL NO.: 10/625,018

FILING DATE: July 23, 2003 GROUP: Not yet assigned

		OTHER ART, JOURNAL ARTICLES, ETC.							
EXAM. INIT.									
KOD	C89	Zhang et al., "Demonstration of a GaAs-Based Compliant Substrate Using Wafer Bonding and Substrate Removal Techniques," Electronic Materials and Processing Research Laboratory, Department of Electrical Engineering, University Park, PA 16802, 1998, pp. 25-28.							
	C90	"Optimal Growth Technique and Structure for Strain Relaxation of Si-Ge Layers on Si Substrates," <u>IBM</u> <u>Technical Disclosure Bulletin</u> , Vol. 32, No. 8A (January 1990), pp. 330-331.							
V	C91	"2 Bit/Cell EEPROM Cell Using Band to Band Tunneling for Data Read-Out," IBM Technical Disclosure Bulletin, Vol. 35, No. 4B (September 1992), pp. 136-140.							
EXAMIN	VER	DATE CONSIDERED 6/18/2004							

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EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	NAME		CLASS	SUB CLASS		NG DAT
KBD	A114	5,777,347	07/07/1998	Barteli	ink.			· .		
	A115	5,906,951	05/25/1999	Chu et	al.					
	A116	6,013,134	01/11/2000	Chu et	al.					<u> </u>
	A117	6,059,895	05/09/2000	Chu et	al.					
	A118	6,111,267	08/29/2000		er et al.					
	A119									
	A120	6,249,022	06/19/2001						<u> </u>	
Y	A121	6,266,278	07/24/2001	Harari	et al.				ļ	
			FOREI	GN PATI	ENT DOCU	MENTS	;			. - —
EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY	Y CLASS	SUB CLASS	FILING DATE	ABSTR. ONLY	ACT	ENGL LANC (Y/N)
KBD	B39	4-307974	10/30/1992	JP				N		Y (At only)
	B40	7-106446	04/21/1995	JP				N		Y (At only)
V	B41	11-233744	08/27/1999	JP				N		Y (Atonly)
	<u> </u>		OTHER AF	RT, JOUR	NAL ART	ICLES, I	ETC.			
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SUPPLEMENTAL INFORMATION OF DISCLOSURE STATEMENT



ATTORNEY DOCKET NO.: ASC-043C2

APPLICANT(S): Fitzgerald et al.

SERIAL NO.: 10/625,018

FILING DATE: July 23, 2003

EXAM.		DOCUMENT	DATE	NAME			CLASS			ING DATE I	
NIT.		NUMBER	<u> </u>	ļ				CLASS	<u> </u>	PROPRIATE	
KBD	A122	2002/0043660	4/18/2002	Yamazaki e	Yamazaki et al.				6/25/2001		
	A123	2002/0096717	7/25/2002	Chu et al.					1/25/2001		
	A124	2002/0123167	9/5/2002	Fitzgerald					7/16/2001		
	A125	2002/0123183	9/5/2002	Fitzgerald					7/16/2001		
	A126	2002/0125497	9/12/2002	Fitzgerald					7/16	5/2001	
	A127	2002/0168864	11/14/2002	Cheng et al					4/4/	2002	
	A128	2003/0003679	1/2/2003	Doyle et al.	Doyle et al.				6/29	/2001	
	A129	2003/0013323	1/16/2003	Hammond o	et al.				6/14	1/2002	
	A130	2003/0025131	2/6/2003	Lee et al.					8/2/	2002	
	A131	2003/0057439	3/27/2003	Fitzgerald	Fitzgerald				8/9/	8/9/2002	
	A132	4,994,866	2/19/1991	Awano					1/5/	1989	
	A133	6,420,937	7/16/2002	Akatsuka et	Akatsuka et al.				6/14	/2001	
	A134	6,524,935	2/25/2003	Canaperi et al.					9/29	/2000	
	A135	6,573,126	6/3/2003	Cheng et al.					8/10	/2001	
	A136	6,583,015	6/24/2003	Fitzgerald e	Fitzgerald et al.				8/6/2001		
	A137	6,593,191	7/15/2003	Fitzgerald					5/16/2001		
4	A138	6,682,965	1/27/2004	Noguchi et	al.				3/26	/1998	
···			FOREIG	GN PATEN	T DOCU	MENTS			•		
XAM. IIT.		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	FILING DATE	ABSTR/ ONLY	ACT	ENGLISH LANG (Y/N)	
KED	B42	6-244112	9/2/1994	JP				N		Abstract	
1	B43	2001319935	5/11/2000	JP				N		Abstract	
			OTHER AR	T, JOURN	AL ARTI	CLES, E	TC.				
XAM. IIT.	ОТНІ	ER DOCUMEN	ΓS: (Including	Author, Title	e, Date, Re	levant Pag	es, Place of	Publicati	ion)		
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